REMARKS

The Applicant appreciates the thorough review of the application by the Examiner. Reconsideration and allowance are requested.

No new matter has been added by the amendments. No new issues are raised by the amendments.

The Applicant appreciates the Examiner's comments over the phone on October 14, 2005. The Applicant has incorporated the Examiner's comments and suggested changes into the independent claims. In the phone conversation on October 14, 2005, the Examiner suggested adding elements including DDL, DDF and compilers to the claims.

The amended independent claims now include all of these elements.

DDL files are "object class definition files" as described on page 9 of the specification. "Object class definition files" have been added to claims 1, 11 and 21. "Object class definition files" were already found in claim 22.

DDF files are "object class description files" as described on page 9 of the specification. "Object class description files" have been added to claims 1, 11 and 21. "Object class description files" were already found in claim 22.

Compilers and compiling have been added to claim 11. Compilers and compiling were already found in claims 1, 21 and 22. The wording "data definition language compiler" was added to claim 1. are also found in the amended claims and described in the specification.

The duplication process as claimed is described in detail on pages 16 - 19 of the specification.

Kindly reconsider and allow all of the claims. Claims 2 - 10 and 12 - 20 are based on patentable independent claims and are also patentable.

Claims 1 - 22 are patentable under 35 U.S.C. 103(a) over Pham (U.S. Patent No. 5,524,253) in view of Bannon (U.S. Patent No. 5,297,279) and further in view of the Admitted Prior Art.

None of the references disclose the claimed system nor is any reference directed to the problem of sharing objects over a network.

The present invention addresses and provides a solution to a long-standing problem faced by program developers working in object-oriented programming of writing networking instructions that manage the sharing of classes of objects. This is a time-consuming task and involves extensive testing. The present invention describes a unique higher-level programming language that can be used to describe shared objects wherein network instructions are embedded within the object classes. Thus additional network-specific instructions are not needed. The invention relates to object-oriented programming defined in the present claims.

The independent claims require a "processing means is configured by said executable instructions set to manage the duplication of said described objects". The management of the duplication of objects involves copying an object to a networked terminal to create a duplicate and then maintaining consistency between duplicates. None of the references of record including those expressly cited by the Examiner discloses the management of the duplication of objects.

Pham relates to a system for integrating applications that are running on different platforms and written in different languages. According to Pham this problem can arise where processes have been automated one at a time over a period of years resulting in the need to connect machines to each other (column 1, lines 23 - 42). Pham therefore describes a software

tool that "translates" messages and data that need to pass from one machine to another (column 5, lines 11 - 17).

Pham does not discuss object-oriented programming. Thus, Pham does not disclose memory means that "is configured to store program instructions for describing objects to be shared over a network by a plurality of network-connected terminals", nor that "said processing means is configured by said executable instructions set to manage the duplication of said described objects" as uniquely pointed out in claims 1, 11 and 21. Claim 1 defines "objects" to be the elements of object-oriented programming which is not taught nor suggested by the references. Thus claims 1, 11 and 21 are patentable over Pham.

With regard to claim 22, Pham clearly does not disclose any of the required elements, such as "object class definition files", "object class description files", "linker", a "Data Definition Language compiler", a "Higher Level Programming Language compiler", a "Data Definition Language library", or "Higher Level Programming Language libraries".

Pham is directed to the problem of creating a network between differing machines and does not discuss object-oriented programming. The reference is directed to the problem of creating a network between automated systems, which is a totally different problem from that solved by the present invention. Thus Pham neither discloses nor renders obvious the amended independent claims.

Pham does not discuss object-oriented programming and thus does not disclose "program instructions for describing objects for use in object-oriented programming to be shared over a network". The only examples of sharing in Pham are the copying of manipulation files to a compilation node and the distribution of a data manipulator module to a new node during its setup process (see Figure 5, described at columns 13 and 14). Neither of these can be defined as

managing the duplication of objects, because consistency between the copy and the original is not maintained. Thus Pham does not disclose the configuration of a processing means by an executable instruction set to manage the duplication of objects.

Bannon discloses a system and method for database management for providing support for long-term storage and retrieval of objects created by an application program written at least in part in object-oriented programming languages. This type of database is referred to as an object-oriented database (OODB). Previous OODBs have various limitations. Some use new programming languages, some require mapping between data models, some require a proprietary language translator, and so on. Bannon provides an improved system by presenting an application interface for programming languages comprising a number of software modules, using the data model of existing object-oriented languages.

Bannon does not suggest the possibility of object duplication. The reference is limited solely to storing and retrieving objects, not with duplicating them over a network. Although Bannon discusses the use of a Data Definition Module that "accepts object type descriptions on standard C++ programming language statements... and extracts sufficient information from the descriptions to enable the OTS module to translate objects between their primary and secondary representations" (column 7, lines 3 to 8), this translation should not be confused with duplication. As described at column 25, line 1 to column 26, line 39, translation between memories moves an object between the internal primary memory and the external secondary memory on a single computer system. It is not the duplication of the object over a network of terminals. Thus Bannon does not disclose memory means that "is configured to store program instructions for describing objects for use in object-oriented programming to be shared over a network by a

plurality of network-connected terminals", nor that "said processing means is configured by said executable instructions set to manage the duplication of said described objects".

Therefore, the claims are patentable over Bannon. There would have been no motivation to combine Pham and Bannon. A person of ordinary skill in the art at the time of the invention would not have thought to combine the references.

There can be no question of obviousness because the problems are so different. There is no reason why one of ordinary skill in the art should look to the field of distributed objects, which has at its heart the notion of accessing an object in a single location, for an answer to a problem with duplicating objects.

Any combination of Pham, Bannon, and the Admitted Prior Art would still not produce the invention. Since none of them even contemplate the duplicating of objects there is no reason why the combination of the three disclosures should lead one skilled in the art to suggest the present invention.

Nothing in the references, either singly or in combination, teaches or suggests the claimed features. Therefore, the references cannot anticipate nor render obvious the present invention as claimed.

Since Applicant has presented a novel, unique and non-obvious invention, reconsideration and allowance are respectfully requested.

CONCLUSION

Reconsideration and allowance are respectfully requested.

Respectfully,

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Date: January 12, 2006